FACT SHEET

AIR TOXICS RULE FOR SECONDARY ALUMINUM PRODUCTION PLANTS

TODAY'S ACTION. . .

- The Environmental Protection Agency (EPA) is issuing a final rule to reduce hazardous air pollutants emitted from secondary aluminum production plants. Air toxics, also known as hazardous air pollutants, are those pollutants known to cause or suspected of causing cancer or other serious health effects.

- Secondary aluminum plants recover aluminum from scrap such as beverage cans, foundry returns, other aluminum scrap, and dross. Air toxics are released from preprocessing operations such as aluminum scrap shredding, thermal chip drying, scrap drying/decoating/ delacquering; and furnace operations (i.e., melting, holding, refining, fluxing, or alloying).

WHAT ARE THE HEALTH AND ENVIRONMENTAL BENEFITS?

- Secondary aluminum plants emit a variety of toxic air pollutants. These air toxics vary by facility and process operation but may include up to 11 metals, organic compounds (including dioxins and furans, and polycyclic organic matter), and acid gases such as hydrogen chloride and chlorine. The health effects associated with exposure to these air toxics can include cancer, respiratory irritation, and damage to the nervous system.

- EPA’s rule will reduce nationwide emissions of air toxics by about 12,420 tons per year, a reduction of nearly 70 percent from current levels. This reduction includes the specific pollutants dioxins and furans and polycyclic organic matter listed for regulation under the Clean Air Act.

- Hydrogen chloride emissions will be reduced by about 12,370 tons per year or by 73 percent. Emissions of metals will be reduced by about 40 tons per year - a reduction of over 60 percent from current levels. Emissions of dioxins and furans will be reduced by about 0.88 pounds per year, which represents a reduction of more than 79 percent. POM emissions will be reduced by about 10 tons per year, or more than 20 percent. Particular sites will achieve even greater reductions.

- Other benefits of today's rule include a decrease in emissions of other pollutants such as particulate matter and a lowered occupational exposure level for employees. Emissions of particulate matter will be reduced by about 3,185 tons per year or by over 30 percent from existing levels.

BACKGROUND

- Under the Clean Air Act Amendments of 1990, EPA is required to regulate sources of 188 listed toxic air pollutants. (Note that this list originally referenced 189 pollutants, but EPA has subsequently removed the chemical caprolactam from the list.) On July 16, 1992, EPA published a list of industrial source categories that emit one or more of these air toxics. For listed categories of "major" sources (those that emit 10 tons/year or more of a listed pollutant or 25 tons/year or more of a combination of listed pollutants), the Clean Air Act requires EPA to develop standards that require the application of stringent air pollution reduction measures known as maximum achievable control technology (MACT).

- EPA's published list of industry groups (known as "source categories") to be regulated includes secondary aluminum production plants.

- Section 112(c)(6) of the Clean Air Act requires EPA to list and promulgate MACT standards for categories of sources emitting seven specific pollutants, including dioxin/furans and polycyclic organic matter from affected sources. EPA listed secondary aluminum production plants under section 112(c)(6) on April 10, 1998 for regulation of dioxin as part of the effort to achieve regulation of 90 percent of the aggregate national dioxin emissions as required by the section.

- The proposed rule was published in the Federal Register on February 11, 1999 (64 FR 6946).

WHO WILL BE AFFECTED BY EPA'S RULE?

- The rule applies to each secondary aluminum production plant that is a major source of emissions of air toxics. In addition, each secondary aluminum production plant that is an area source is subject to limitations on emissions of dioxin/furans.

- Affected sources include each new and existing aluminum scrap shredder, thermal chip dryer, scrap dryer/ delacquering kiln/decoating kiln, group 2 furnace, sweat furnace, dross-only furnace, rotary dross cooler, and secondary aluminum processing unit.

- The EPA has identified more than 400 "traditional" secondary aluminum production facilities. Based on available information about secondary aluminum production plants, EPA estimates that 86 facilities are major sources of emissions of air toxics. The EPA estimates there are also about 1,650 facilities with sweat furnaces, and a number of aluminum extruding, die casting, and foundry facilities that are potential area sources of dioxin/furans.

- EPA based its air toxics (MACT) standard for aluminum die casting and aluminum foundries, as well as its assessment of the economic impacts on small businesses in these industries, on information on representative facility practices provided by these industries. However, affected facilities in these industries have expressed concern that the information and assumptions upon which EPA has relied may be incomplete or may not adequately represent the processes and emissions at such facilities. In light of this information, EPA has decided that it would be prudent to gather further information concerning facilities in the aluminum die casting and aluminum foundry industries and then to reevaluate the air toxics requirements and economic impacts on small businesses in these industries.

- Within the next 3 months, EPA intends to issue a proposed rule to remove the aluminum die casting and aluminum foundry industries from the present secondary aluminum standard, and a proposed rule to stay the applicability of the present standard to the aluminum die casting and aluminum foundry industries while EPA reevaluates the MACT requirements for such facilities. EPA intends to take final action concerning the proposed stay soon thereafter.

- EPA will also initiate a formal process to collect further information from the facilities in these industries on the activities in which they engage and the potential of these activities to contribute to air toxics emissions. After evaluating this information, EPA will make a new determination concerning MACT requirements for facilities in these industries. EPA expects to adopt any alternative MACT standard applicable to these industries, and to take final action to remove the aluminum die casting and aluminum foundry industries from the current standard, within two

years. Any alternative MACT standard adopted for these industries will provide three years from the date of promulgation for affected facilities to achieve compliance.

WHAT DOES EPA'S RULE REQUIRE?

- EPA's rule establishes emission standards for metals, dioxin/furans, organic hazardous air pollutants, and acid gases for secondary aluminum plants that are major sources. The rule uses particulate matter as a surrogate for metals, total hydrocarbons as a surrogate for organics, and hydrogen chloride as a surrogate for total emissions of hydrogen chloride, chlorine, and hydrogen fluoride. Emission standards are established for dioxin/furans for affected sources at secondary aluminum plants that are major or area sources. The rule provides an alternative standard for sweat furnaces equipped with afterburners meeting specified design and operational criteria. Units with the specified equipment are not required to conduct compliance tests for dioxin/furans.

- New and existing affected sources can achieve the emission reductions required by the rule through the use of a fabric filter, a lime-injected fabric filter, an afterburner, or an afterburner followed by a lime-injected fabric filter depending on the type of source. Some facilities may meet the emission standards through pollution prevention/work practices or a combination of these plus add-on controls. Operating requirements also are included in the rule.

- Plants also must comply with the monitoring, recordkeeping, and reporting requirements in today’s rule.

- EPA's rule provides flexibility to the industry by offering alternative compliance and monitoring options. Surrogates are used to reduce the monitoring and emissions testing costs. Additional reductions in testing costs are achievable through like-for-like testing where only one of several affected sources with the same design and same operating practices needs to be tested to demonstrate compliance. However, all facilities with add-controls must be tested.

- Compliance options include emission limits or percent reduction standards, alternative control equipment-related design standards for sweat furnaces, and averaged emission limits for group 1 furnaces and in-line fluxers that are part of a secondary aluminum processing unit.

- Provisions allowing owner/operators to apply for alternative monitoring of group 1 furnaces not equipped with add-on controls are included. If approved, these are site-specific monitoring plans that become part of the facility's operation, maintenance, and monitoring plan. Application provisions for alternative monitoring for other affected sources are also included.

- The final rule defers the permitting of smaller, so called "area" sources under the title V operating permits program until December 9, 2004.

HOW MUCH WILL TODAY'S RULE COST?

- EPA estimates that implementation of this rule will result in $105 million in capital costs with total annual costs of $76.7 million/yr. The monitoring, recordkeeping, and reporting costs are estimated at $9.2 million/yr. The proposals described above could result in some changes to these estimates.

FOR FURTHER INFORMATION...

- Interested parties can download the rule from EPA's web site on the Internet under "recent actions" at: *http://www.epa.gov/ttn/oarpg*. For further information about today's rule, contact Mr. Juan Santiago of EPA's Office of Air Quality Planning and Standards at (919) 541-1084.

- The EPA's Office of Air and Radiation's (OAR's) home page on the Internet contains a wide range of information on the air toxics program and many other air pollution programs and issues. The OAR's home page address is: *http://www.epa.gov/oar*.